



**Wisconsin Department of Transportation**  
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# US 51 Needs Assessment

**WISCONSIN DEPARTMENT OF TRANSPORTATION DISTRICT 1**

## Introduction

The Wisconsin Department of Transportation (WisDOT), in cooperation with the Federal Highway Administration (FHWA), is completing an in-depth study to review and analyze transportation needs on US 51. The study corridor is along US 51 from Burma Road in the Village of McFarland to the County N intersection on the east side of the City of Stoughton. In addition, an analysis of highway operations has been performed from the County N intersection in Stoughton east to the US 51/I-90/39 interchange. The study is identifying existing problems along the corridor and looking at the impact that growth between Stoughton and McFarland will have on the route. This study has not examined possible improvements to the road. Possible improvements will be addressed following completion of the study.



## How do we know future traffic patterns?

To understand how the highway will operate in the future, the study team made population and traffic projections for US 51 and the surrounding areas. These projections were used to model future conditions that helped the project team understand where congestion and safety concerns may arise. These issues or "needs" are described in detail on the next page.

**2030 Population Projections:** 2030 traffic modeling assumes that the average population growth rate for the study area will be about 1.2 percent annually between 2003 and 2030. This is the annual population growth rate from 1980-2000, based on data from the U.S. Bureau of the Census. This means that approximately 47,000 people will live in the study area in 2030.

Some community growth rates are higher than the average while some are lower. Within the City of Stoughton, population growth rates are assumed to continue at 2.5 percent per year. This is halfway between the growth rates used in Scenarios 2 and 3 of the pending Stoughton Comprehensive Plan. McFarland population growth rates are assumed to continue at 2.7 percent per year. This is consistent with the pending McFarland Comprehensive Plan.

**2050 Population Projections:** 2050 traffic modeling assumes that the average population growth rate for the study will also be 1.2 percent annually between 2003 and 2050. This means that approximately 57,000 people will live in the study area in 2050. If the growth rate is higher than 1.2 percent annually, these population projections could be reached well before 2050.

## Next Steps

After the public information meeting is held on January 29, 2004, a technical report and executive summary documenting the needs identified will be completed. The final report will be available in February 2004 on WisDOT's project web site [www.dot.wisconsin.gov/projects/d1/us51study](http://www.dot.wisconsin.gov/projects/d1/us51study). The study report will detail the data analysis, public involvement process, and identification and prioritization of immediate needs, emerging needs and long-term needs. An analysis of alternatives that would meet these varying levels of priorities will be undertaken beginning in Spring 2004.

## Contact Information

If you have questions or concerns about this project, you may contact the following representatives:

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## Notice of Public Information Meeting

Preliminary results of the US 51 Needs Assessment study will be presented at a Public Information Meeting on **JANUARY 29, 2004** IN THE **STOUGHTON PUBLIC SAFETY BUILDING (UPPER LEVEL OF POLICE DEPARTMENT), 321 S. FOURTH STREET, STOUGHTON**. The meeting will be an Open House format from 4:00-8:00 p.m.

The public is invited to attend when it is convenient for them.

## Information available at the Public Meeting will include:

- Traffic volumes
- Crash Rate data
- Land Use Maps
- Traffic Operations Modeling
- Corridor Needs and Issues

## Preliminary Results of the US 51 Needs Assessment

The US 51 study process has raised a number of issues and concerns about the existing facility and its ability to safely accommodate vehicles, bicycles and pedestrians both today and in the future. The needs identified during the US 51 Needs Assessment have been divided into three categories; needs related specifically to the roadway, needs related to other modes of transportation and needs related to ongoing land use planning efforts.

### Identified Roadway Needs

- **Improvements to access on US 51** in Stoughton, in McFarland and between Stoughton and McFarland. Public comments reflected a great deal of concern about the difficulty of entering US 51 from the side roads. Traffic modeling using 2030 traffic projections (See Page 1) indicate unacceptable conditions at most of the unsignalized intersections, including Exchange Street, County B west/County AB, and County B east, among others. Traffic modeling using 2050 traffic projections indicates that access to and across US 51 would be nearly impossible except at signalized intersections. In addition, unacceptable queuing would occur on side streets and on US 51, assuming 2050 traffic projections.



Exchange Street intersection (looking north)

- **Improvements to reduce congestion on US 51 on the two-lane section** between Stoughton and McFarland. Traffic modeling of existing conditions indicates below-average travel speeds and passing ability. Modeling of future conditions using 2030 traffic projections showed that travel speeds and passing opportunities would drop to unacceptable levels and in 2050, to intolerable levels.



The traffic model shows congestion at unsignalized side streets with 2030 traffic volumes

- **Improvements to reduce congestion on US 51 within Stoughton.** 2030 Traffic modeling indicates that queuing at signalized intersections may block adjacent intersections with US 51. 2050 Traffic modeling indicates that within Stoughton operations could breakdown frequently due to gridlock of the street system.
- **Increased law enforcement** between Stoughton and McFarland.
- **Improvements to lane markings and signage** on US 51, particularly at the Exchange Street and County N intersections.
- **Safety improvements to US 51 in Stoughton.** Based on crash rates within Stoughton from the past five years, there is a need for further investigation of possible improvements.
- **Safety improvements at intersections in the rural areas.** Based on intersection crash rates, further investigation is needed at Tower Drive, County B west/County AB, and County N.

### Identified Needs for Other Modes

The study team found that the US 51 corridor needs to better accommodate other modes of transportation. These needs include:

- **Investigation of a pedestrian crossing** of US 51 in McFarland between Babcock Park and its overflow parking lot.
- **Improvements to the discontinuous bicycle and pedestrian facilities** in McFarland and Stoughton.



Discontinuous bicycle and pedestrian facilities in Stoughton (top) and McFarland (bottom).

- **Improvements to bicycle and pedestrian access** to and across US 51 on the west side of Stoughton.
- **Investigation of creating a suitable bicycle and pedestrian route/multi-use trail** between Stoughton and McFarland.
- **Promotion of existing transit and transportation demand management programs** currently serving users of the corridor such as the State Vanpool, Dane County Rideshare, Stoughton Shared Ride Taxi, and other specialized transportation services.

- **Implementation of Transport 2020 planning.**

Transport 2020 is a study of alternatives for transit in the greater Madison metropolitan area completed in August 2002. Transport 2020 identifies a preferred "start-up system" that includes expansion of local bus service, addition of park-and-ride sites, and commuter bus service to Stoughton via US 14. After implementation of the "start-up system," the next stage of the plan identifies "extensions" to the start-up system that include expansion of commuter rail service, and the addition of express bus service to Stoughton via US 51. The role of the Transport 2020 system should be explored further.

### Identified On-Going Planning Needs

The study team found that certain issues will require continued coordination with land use planning efforts. These include:

- **Continued application of appropriate land use controls on new development** along the corridor, such as adequate building setbacks, driveway entry throat lengths, access spacing, etc.
- **Preservation of appropriate right-of-way widths** to allow for future US 51 improvement options
- **Coordination between land use and transportation planning.** Without coordination between land use planning and transportation planning, transportation corridors can vanish. This can lead to substantial increases in the cost of proposed transportation improvements or costly improvement alternatives.



Access control along US 51 will become more important as congestion increases.